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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,171	10/04/2004	David Alan Braun	9432-175/NPB	6639

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EXAMINER	
BOSS, BROCK N	

ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,171	BRAUN ET AL.	
	Examiner	Art Unit	
	Brock N. Boss	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-30 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 04 October 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date See Continuation Sheet.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-11** and **13-30** are rejected under 35 U.S.C. 102(b) as being unpatentable over Croy et al. (US Patent Number 6,476,825 B1).

Regarding **claim 1**, Croy discloses a television entertainment system having two-way communication (see column 4, lines 34-36) capability with a hand-held remote device (see Figure 55, element 5514) accessing an external information source (see column 27, lines 63-65), comprising: a television receiver (see Figure 55, element 5510) adapted to receive television programming content (see column 12, lines 59-67; column 13, lines 1-15); and a television set top box (see Figure 55, element 5512) adapted to receive program related information over a broadcast channel (e.g. through VBI) and transmit the program related information to the hand-held remote device (see column 21, lines 15-26), wherein the hand-held remote device is adapted to visually render information received over a broadcast channel (see column 21, lines 24-26) and synchronize delivery of the program related information with delivery of related information from the external information source (see column 21, lines 53-58).

Regarding **claim 2**, Croy discloses the system as claimed above (see claim 1). In addition

Croy discloses the system wherein said television set top box includes a vertical blanking interval data formatter (see column 3, lines 54-64) adapted to reformat vertical blanking interval data to be compatible with different forms of media (see column 3, lines 54-64), thereby rendering hand-held remote device compatible with a broad range of media formats (see column 10, lines 10-19) (See also column 3, lines 64-67).

Regarding **claim 3**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said television set top box includes a command processor (see Figure 1, element 130) adapted to receive a command requesting vertical blanking interval data (see column 4, lines 1-2) retrieve requested data from a vertical blanking interval data buffer (see column 4, lines 17-18), and transmit the data (see column 10, lines 4-19) to the hand-held remote device through a wireless interface (see column 4, lines 28-38) wherein the [[command]] processor is further adapted to receive a command for controlling a remotely controllable device, and send appropriate commands to an infrared transmitter (see column 25, lines 14-24).

Regarding **claim 4**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said television set top box includes a tuner (see Figure 1, element 120) adapted to tune a specific channel of a television broadcast signal (see column 11, lines 57-59).

Regarding **claim 5**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said television set top box includes a demodulator adapted to demodulate a channel of a television broadcast signal (see column 27, lines 2-12).

Regarding **claim 6**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said television set top box includes a vertical blanking

interval decoder (see Figure 1, element 122) adapted to receive a television channel and to decode vertical blanking interval data transmitted in that channel (see column 3, lines 54-64).

Regarding **claim 7**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said television set top box includes a vertical blanking interval parser adapted to continuously collect vertical blanking interval data (see column 25, lines 25-49) and store it in a vertical blanking interval data buffer (see column 21, lines 51-65).

Regarding **claim 8**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said television set top box includes a pluggable tuner and decoder module (see column 8, lines 59-61).

Regarding **claim 9**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said television set top box includes a switch adapted to route vertical blanking interval data between a vertical blanking interval data buffer and a media device (see column 25, lines 25-49).

Regarding **claim 10**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said television set top box includes a media bridge (see Figure 57, element 5716) having a data formatter and a media interface, wherein the data formatter reformats the data stream received from the integrated decoder to be compatible with the media interface, and once the data is reformatted to a predetermined media type, it is transmitted through the media interface to an external device (see column 21, lines 51-67; column 22, lines 1-6).

Regarding **claim 11**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein the hand-held remote device includes a vertical

blanking interval buffer manager (see Figure 57, element 5718) adapted to handle interaction between the hand-held remote device and a remotely controllable device (see column 21, lines 58-63).

Regarding **claim 13**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said hand-held remote device includes a first input receptive of information from an external source (see Figure 57, element 5712) (see column 21, lines 51-58), and a second input receptive of the program related information (see Figure 57, element 5712), and a user interface application receptive of user input (see Figure 57, element 5732), wherein the device is adapted to retrieve the programming information in response to a request from a user (see column 21, lines 34-50).

Regarding **claim 14**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said hand-held remote device includes a synchronization engine (see Figure 57, element 5716) adapted to synchronizes vertical blanking interval data with content downloaded from the external information source (see column 21, lines 53-58), thereby permitting the user to receive real-time supplementary program lists and information related to the currently-viewed programs (see column 23, lines 43-55).

Regarding **claim 15**, Croy discloses the system as claimed above (see claim 1). In addition Croy discloses the system, wherein said set-top box includes a digital tuner (see Figure 1, element 120), a demodulator that outputs a transport stream from a digital broadcasting signal (see column 27, lines 2-5), and a transport stream decoder that splits the transport stream into a data section and an audio visual section (see column 21, lines 51-67; column 22, lines 1-6).

Regarding **claim 16**, Croy discloses the system as claimed above (see claim 15). In

addition Croy discloses the system, wherein said set-top box includes a data buffer (see column 21, lines 51-65) caching the transport stream (e.g. transporting image memory).

Regarding **claim 17**, Croy discloses the system as claimed above (see claim 15). In addition Croy discloses the system, wherein said set-top box includes an audio-visual decoder decoding the audio-visual section (see column 21, lines 51-65).

Regarding **claim 18**, Croy discloses the system as claimed above (see claim 17). In addition Croy discloses the system, wherein said set-top box includes a digital port communicating the audio-visual section to a digital television (see column 26, lines 46-50).

Regarding **claim 19**, Croy discloses the system as claimed above (see claim 17). In addition Croy discloses the system, wherein said set-top box includes a digital to analog encoder adapted to encode the audio-visual section and communicate the section to an analog television (see column 21, 63-65).

Regarding **claim 20**, Croy discloses a method of delivering information to a television viewer via a hand-held device (see Figure 55, element 5514), comprising: receiving programming information extracted from a television broadcast channel (see column 3, lines 43-46); accessing additional information via an external information source (see column 27, lines 63-65) (see column 3, lines 54-64); identifying related information among the additional information based on the programming information; and synchronously delivering the programming information and the related information to a user (see column 21, lines 53-58).

Regarding **claim 21**, Croy discloses a method as claimed above (see claim 20). In addition, Croy discloses the method, comprising receiving the television broadcast signal (see column 8, lines 56-67).

Regarding **claim 22**, Croy discloses a method as claimed above (see claim 20). In addition, Croy discloses the method, comprising extracting programming information from the channel of the television broadcast signal (see column 10, lines 4-19).

Regarding **claim 23**, Croy discloses a method as claimed above (see claim 20). In addition, Croy discloses the method, comprising communicating the programming information from a set top box to a hand-held device accessing the external information source (see column 10, lines 10-19).

Regarding **claim 24**, Croy discloses a method as claimed above (see claim 20). In addition, Croy discloses the method, comprising continuously decoding vertical blanking interval data and buffering the vertical blanking interval data as the programming information (see column 3, lines 54-67).

Regarding **claim 25**, Croy discloses a method as claimed above (see claim 20). In addition, Croy discloses the method, comprising formatting vertical blanking interval data to render it compatible with a broad range of types of additional data (see column 10, lines 10-19) (See also column 3, lines 64-67).

Regarding **claim 26**, Croy discloses a method as claimed above (see claim 20). In addition, Croy discloses the method, comprising routing vertical blanking interval data between a source of vertical blanking interval data and a media device (see column 25, lines 25-49).

Regarding **claim 27**, Croy discloses a method as claimed above (see claim 20). In addition, Croy discloses the method, comprising extracting a transport stream from a digital broadcasting signal (see column 25, lines 25-49)

Regarding **claim 28**, Croy discloses a method as claimed above (see claim 27). In

addition, Croy discloses the method, comprising splitting the transport stream into a data section and an audio-visual section (see column 21, lines 51-67; column 22, lines 1-6).

Regarding **claim 29**, Croy discloses a method as claimed above (see claim 28). In addition, Croy discloses the method, comprising caching the audio-visual section (see column 21, lines 51-65).

Regarding **claim 30**, Croy discloses a method as claimed above (see claim 27). In addition, Croy discloses the method, comprising decoding the audio visual section (see column 21, lines 51-67; column 22, lines 1-6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Croy et al. (US Patent Number 6,476,825 B1) in view of Tsukagoshi (US Patent Number 6,067,653) in further view of Harrison et al. (US Patent Number 6,064,420).

Regarding **claim 12**, Croy discloses everything as claimed above (see claim 11). However, Croy does not explicitly disclose wherein the buffer manager has a vertical blanking

interval parser, has a vertical blanking interval buffer with time stamped and channel stamped contents, and is adapted to enforce a data purge policy removing data from the buffer based on at least one of: a fixed duration; a duration customizable by a user; a data purge command initiated by a user; a data purge initiated upon switch of a channel; a data purge initiated upon termination of a television program; and a data purge initiated upon receipt of a trigger.

In an analogous art Tsukagoshi discloses a vertical blanking interval parser, has a vertical blanking interval buffer with time stamped and channel stamped contents (see column 10, lines 10-41).

It would have been obvious at the time of Applicant's invention for one of ordinary skill in the art to modify Croy's invention to include a vertical blanking interval parser for the predictable result of interpreting VBI data which include time stamps for synchronization of transmitted data, and information related to the appropriate channel that the system is tuned so unnecessary information is not taking up bandwidth.

However, neither Tsukagoshi nor Croy disclose a data purge policy removing data from the buffer based on at least one of: a fixed duration; a duration customizable by a user; a data purge command initiated by a user; a data purge initiated upon switch of a channel; a data purge initiated upon termination of a television program; and a data purge initiated upon receipt of a trigger.

In an analogous art, Harrison discloses data purging by removing data from the buffer based on at least one of: a fixed duration; a duration customizable by a user; a data purge command initiated by a user; a data purge initiated upon switch of a channel; a data purge

initiated upon termination of a television program; and a data purge initiated upon receipt of a trigger (see column 8, lines 11-29).

It would have been obvious at the time of the Applicant's invention for one of ordinary skill in the art to modify Croy's invention in view of Tsukagoshi invention to include a data purge policy for the predictable result of purging unnecessary data in the buffer which could impede transmission of video due to the inability to purge buffer data that has already been processed, this is a common data technique in the art with buffers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brock N. Boss whose telephone number is (571) 270-1660. The examiner can normally be reached on Monday-Thursday 9:30-7:30 Eastern Standard Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BB
January 3rd, 2007

VIVEK SRIVASTAVA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

BB'

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :3/03/2006, 9/01/2005, 10/04/2004.